

REMARKS

Applicants respectfully request reconsideration and allowance of this application in view of the amendments above and the following comments.

New claims 27 and 28 are simply two alternative embodiments flowing from the “either/or” clause of claim 19. Applicants do not believe that either claim introduces new matter. Indeed, the same “either/or” clause can be found on page 2 of the original specification. An early notice that claims 27 and 28 do not introduce new matter is earnestly solicited.

The amendment filed July 28, 2008, was objected to once again under 35 USC § 132(a) as introducing new matter into the disclosure. In response, Applicants respectfully submit that the Examiner still has not focused on the language in step e of original claim 1, i.e., “[s]election of 3-D data records of *fabricated*, previously scanned teeth from a data record D3.” The Examiner is simply incorrect that this could be the patient’s own natural teeth. Fabricated teeth are the same as denture teeth.

Indeed, attached is a R132 Declaration showing the previous reference to “dental prostheses” was merely a translation error. Errors in translation may be corrected without introducing new matter. *See, for example, In re Lange*, 209 USPQ 288, 295, footnote 10 (CCPA 1981) (“Appellant does not argue that a mere error in translation has occurred ***which should be correctable notwithstanding 35 USC 132*** (emphasis added)”); and *In re Oda et al.*, 170 USPQ 268, 272 (CCPA 1971) (“We also think there is adequate evidence in the record to show that the error in saying ‘nitrous’ instead of ‘nitric’ was a translation error * * * due to faulty translation of the Japanese [priority application] into English. * *

* There is not the slightest evidence to cast doubt on appellants' assertions or any suggestion that they are trying to change the nature of the invention patented (again, emphasis added).")

In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw this objection. An early notice that this objection has been reconsidered and withdrawn is earnestly solicited.

Claims 18, 19, 22, 25 and 26 were rejected under 35 USC § 103(a) as being obvious over the combination of Thomas, US 7,153,135, in view of Dillier, US 2002/0110786.

Claim 20 was rejected under 35 USC § 103(a) as being obvious over Thomas in view of Dillier and further in view of Baumrind, US 6,621,491.

Claim 21 was rejected under 35 USC § 103(a) as being obvious over Thomas in view of Dillier and further in view of Chishti, US 5,975,893.

Claims 23 and 24 were rejected under 35 USC § 103(a) as being obvious over Thomas in view of Dillier and further in view of Jordan et al. ("Jordan"), US 6,152,731.

In response to *all* of the obviousness rejections, Applicants note that all of these rejections depend upon the combination of Thomas and Dillier making out a *prima facie* case of the obviousness of main device claim 18 and main method claim 19, which Applicants respectfully submit the combination of Thomas and Dillier fails to do. There is nothing in either Baumrind or Chishti or Jordan that remedies the deficiencies of

Thomas in view of Dillier. Therefore, Applicants respectfully submit that the combinations of Thomas taken in view of Dillier alone or further in view of Baumrind or Chishti or Jordan each fail to make out a *prima facie* case of the obviousness of any of the rejected claims.

Further on this point, Applicants point out that the Examiner says that Applicants' arguments regarding the previous anticipation rejection based on Thomas are moot in view of the withdrawal of that rejection. However, Applicants respectfully submit that Applicants' arguments regarding Thomas still have relevance in the context of the present rejections.

Claim 18

Claim 18 is drawn to a device requiring certain components. The Examiner concedes that Thomas does not teach all of the components. The Examiner only says Dillier teaches a *method*, but does not identify in Dillier any of the components that are conceded to be missing from Thomas. Consequently, the Examiner cannot have made out a *prima facie* case of the obviousness of claim 18.

In particular, the Examiner concedes that Thomas does not teach scanning fabricated teeth to produce 3D data records of fabricated teeth, selecting fabricated teeth from 3D data records, and virtually placing the teeth into the virtual model. Consequently, Thomas presumably does not teach devices that carry out these functions. Claim 18, as amended above, requires:

- (d) a processing module that fits data for prefabricated dental prostheses into the virtual model and thereby creates a virtual model with integrated dental prosthetic teeth; and
- (e) a simulation module that simulates mandibular movements on the virtual model and tests and optimizes positions of the integrated dental prosthetic teeth in the virtual model.

Since the Examiner concedes that Thomas does not teach virtually placing the teeth into the virtual model, Thomas cannot teach element (d) of claim 18, which performs this function. Further, since Thomas concededly does not teach the virtual model, Thomas cannot teach element (e) of claim 18, which performs functions on the virtual model. The Examiner has not shown these elements in Dillier. Consequently, the Examiner has not established that Thomas and Dillier make out a *prima facie* case of the obviousness of claim 18.

Thomas' data set M does not teach a processing module that fits data for prefabricated dental prostheses into the virtual model and thereby creates a virtual model with integrated dental prosthetic teeth (element (d) above); or a simulation module that simulates mandibular movements on the virtual model and tests and optimizes positions of the integrated dental prosthetic teeth in the virtual model (element (e) above). Consequently, again, the Examiner has not established that Thomas and Dillier make out a *prima facie* case of the obviousness of claim 18.

The Examiner also remarks that Thomas discloses a processing module at column 13, lines 15-35, that is capable of performing the function of instant element (d). However, as previously pointed out on page 10 of the amendment filed July 28, 2008, Thomas sets forth the aim of his invention at column 10, lines 15 ff. There, Thomas writes enigmatically about a data merger with data depicting an outer surface:

"This aim is reached according to the invention when at least a full upper or lower plastic disposable artificial denture is made using digital data of an image of the oral cavity without teeth is created and merged with data depicting a specific outer surface or style and a denture is created..."

In the following paragraph, Thomas mentions different data sets, viz:

"an actual archived model of the person's oral cavity prior to complete tooth removal or artificial elements which are added based on personal preference as a function of image information."

From column 10, line 39, onward, it becomes clear that the stored archival image must be either the previous denture the patient was wearing before being fitted a new one or his/her own natural teeth when he/she still had teeth. Nowhere in Thomas, even in the portion relied on by the Examiner, is there any teaching or suggestion that stored images of prefabricated synthetic teeth are entered separately into the database, thereby creating data sets that can be individually moved separately. The Examiner has not shown Dillier

to teach this feature. So, once again, the Examiner has not established that Thomas and Dillier make out a *prima facie* case of the obviousness of claim 18.

In view of the foregoing, Applicants respectfully submit that the combination of Thomas and Dillier does not make out a *prima facie* case of the obviousness of claim 18. Therefore, Applicants respectfully request that the Examiner reconsider and withdraw this rejection at to claim 18. An early notice that this rejection has been reconsidered and withdrawn is earnestly solicited.

Claims 19-26

Applicants note again that the Examiner concedes that Thomas does not teach scanning fabricated teeth to produce 3D data records of fabricated teeth, selecting fabricated teeth from 3D data records, and virtually placing the teeth into the virtual model.

The Examiner looks to Dillier to teach these elements “missing” from Thomas, finding it would have been obvious to modify Thomas to include the method taught by Dillier in order to provide a method of manufacturing a dental prosthesis that is less error prone and easier to automate. However, Applicants have explained above that Thomas has certain deficiencies vis-à-vis the instant claims, which deficiencies are not bridged by Dillier. Consequently, the combination of Thomas and Dillier also fails to make out a *prima facie* case of the obviousness of any of claims 19-26.

Moreover, Applicants respectfully point out that Dillier constructs a three-dimensional digital model of a *die* in a computer, which is certainly not a virtual model of an oral cavity, as required by instant claim 19. Thus, claim 19 requires in step (b) recording and digitizing 3-dimensional, anatomical relationships *in an oral cavity*. Then, claim 19 requires in step (c) processing the data obtained from step (b), i.e., from the oral cavity, to obtain the virtual model data record. This virtual model data record is then used in step (g) for virtual placing of the fabricated teeth into the virtual model. There is in the combination of Thomas and Dillier no teaching or suggestion to make a virtual model including anatomical relationships in an oral cavity, and, thus, no teaching or suggestion to carry out, at a minimum, required steps (c) and (g) of claim 19. Absent that teaching or suggestion, the combination of Thomas and Dillier cannot make out a *prima facie* case of the obviousness of the claim 19. Further, the combinations of Thomas, Dillier and Baumrind or Chishti or Jordan cannot make out a *prima facie* case of the obviousness of any of the other rejected claims.

The Examiner says that the failure of Dillier to teach recording and digitizing 3-dimensional, anatomical relationships *in an oral cavity* is remedied by Thomas. Respectfully, the Examiner misses the point. If Dillier is making a die, why should the steps he proposes apply to Thomas' method being carried out in an oral cavity? Viewed prospectively, and not in hindsight, Applicants respectfully submit that no person having ordinary skill in the art, given Thomas and Dillier, is taught or suggested to carry out the inventive method in an oral cavity, as required by the instant claims.

In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw all four obviousness rejections. An early notice that all four obviousness rejections have been reconsidered and withdrawn is earnestly solicited.

Applicants believe that the foregoing constitutes a bona fide response to all outstanding objections and rejections.

Applicants also believe that this application is in condition for immediate allowance. However, should any issue(s) of a minor nature remain, the Examiner is respectfully requested to telephone the undersigned at telephone number (212) 808-0700 so that the issue(s) might be promptly resolved.

Early and favorable action is earnestly solicited.

Respectfully submitted,
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